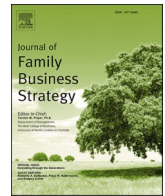




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# Thirty years of research in family business journals: Status quo and future directions

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## ABSTRACT

Family firms are the most ubiquitous form of business organization in any world economy. *Family Business Review*, *Journal of Family Business Strategy*, and *Journal of Family Business Management* are the three leading academic journals exclusively dedicated to this type of firms. Since the inception of the first of the three journals in 1988, these outlets published 1381 articles dealing with family business. This study offers a comprehensive bibliometric overview of these contributions, thereby providing a complete overview of family business research conducted in the three dedicated journals in this field, and laying the ground for future developments. We do not limit our effort to describe the field from a bibliometric perspective, but furthermore unearth the most debated topics, link thematically the aspects emerging from our review, and offer promising avenues for future research.

## 1. Introduction

Family firms are the most ubiquitous form of business organization in any world economy (La Porta, Lopez-de-Silanes, & Shleifer, 1999). Due to the enormous relevance of this type of firms, research on family business has proliferated in the last decades, leading over time to the creation of three dedicated journals: *Family Business Review* (FBR), *Journal of Family Business Strategy* (JFBS), and *Journal of Family Business Management* (JFBM). Ivan Lansberg, the founding Editor-in-Chief of FBR, published the first issue of this journal already in the year 1988. Following the increasing interest in family business research, which needed more space to further expand, in 2010 Joseph H. Astrachan founded the JFBS, while Lorna Collins and Nicholas O'Regan created JFBM the year after. Over the years, several Editors-in-Chiefs succeeded at the lead of these journals, working one after the other to let FBR, JFBS and JFBM become the reference points for research dedicated to the exploration of the dynamics of family-owned and/or -managed firms.

This article aims to examine the whole history (32 years) of family business research published on the aforementioned leading journals dedicated to family firms as their joint research object. It is indeed not new to organize special activities when a field has grown or celebrates

an anniversary, such as for instance a literature review (e.g., Vallaster, Kraus, Lindahl, & Nielsen, 2019; Xu et al., 2018), a special issue (e.g., Meyer & Winer, 2014), or an editorial (e.g., Hopp, 2004; Starbuck, 2016). Most frequently, a bibliometric overview of the field is offered to portray the evolution of a field as it appears in a journal or in a set of journals like in our case. A few examples are the overview of the first thirty years of management research published on the *Journal of Management* by Van Fleet et al. (2006) and the syntheses of the changes in the first twenty years of research conducted on the *Strategic Management Journal* by Ramos-Rodríguez and Ruiz-Navarro (2004), on the *Journal of Product Innovation Management* by Sarin, Haon, and Belkhouja (2018), and on the *Journal of Small Business Management* by Dana, Kumar, Pandey, and Sureka (2021). More recently, a bibliometric analysis has been conducted to provide an overview of research on family business innovation (del Pilar Casado-Belmonte, de las Mercedes Capobianco-Urriarte, Martínez-Alonso, & Martínez-Romero, 2021).

The purpose of this article is thus to offer a detailed and comprehensive picture of the family business research field, providing a detailed examination of its early struggles, key features and growth by considering the studies developed by a great number of scholars in the field and published in FBR, JFBS and JFBM. In the article, we develop a

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bibliometric analysis to offer a retrospective evaluation of the leading trends of this field's past and present (Schwert, 1993). Specifically, our study aims at identifying *FBR*, *JFBS* and *JFBM* publications and citations structure, leading authors, institutions and countries, topics of interests and methods of research. In so doing, we retrieved from Scopus all 1381 documents published in *FBR*, *JFBS* and *JFBM* from 1988 to 2020, and analyzed them using not only bibliometrics, but also the Visualization of Similarities (VOS) viewer software (Van Eck & Waltman, 2009). Nevertheless, our article does not limit to analyze the past and present of the journal, but also provides selected directions for future research.

The analysis and understanding of the research on family business published so far in *FBR*, *JFBS* and *JFBM* can be useful for scholars, students and practitioners. Scholars can understand the structure of the research published in these leading academic journals, the main interests of *FBR*, *JFBS* and *JFBM*, and how family business studies are positioned with respect to *FBR*, *JFBS* and *JFBM* production, as well as identify potential new, unexplored directions for research. Students can leverage on our work to develop an overview of the *FBR*, *JFBS* and *JFBM* field of study, identify the most influential works and productive authors, and understand the open issues where to focus their attention. Practitioners can use our bibliometric analysis as a guide to understand the key concepts and scholars in the family business field, which might be of help to improve the management of their family firms.

This paper is organized as follows. First, we briefly introduce the methodology adopted to conduct the analyses. Then, we present the results of our bibliometric and graphical analysis of the papers published in *FBR*, *JFBS* and *JFBM* between 1988 and 2020. Finally, we conclude by summarizing the main findings and offering some promising avenues for future research.

## 2. Bibliometric methodology

Bibliometric analysis consists in a research area of information and library sciences that studies bibliographical data (e.g., year of publication, authors, affiliations, country of origin) by using a quantitative approach (Broadus, 1987; Pritchard, 1969). Bibliometrics are typically used to summarize, classify and provide representative results of a set of bibliographic documents. In the academic literature, it has been used in many areas, such as management (Podsakoff, MacKenzie, Podsakoff, & Bachrach, 2008), economics (Bonilla, Merigó, & Torres-Abad, 2015), innovation (Fagerberg, Fosaas, & Sappasert, 2012), or entrepreneurship (Ferreira, Fernandes, & Kraus, 2019; Landström, Harirchi, & Åström, 2012). Bibliometrics are very useful to provide an overview of academic research of a field or journal, identifying trends in publications, citations, authors, keywords, and institutions. With our article, we draw on this analysis to extend and update prior work by Casillas and Acedo (2007) and Debicki, Matherne, Kellermanns, and Chrisman (2009) and provide a deep and comprehensive overview of family business research published in the three leading family business journals since their respective foundation.

Specifically, we provide an overview of all research on family business published so far (i.e., from 1988<sup>1</sup> to 2020) in these three journals – namely, *FBR*, *JFBS* and *JFBM*. We identified papers using the Scopus database, which is considered as one of the leading sources of bibliometric information (Adriaanse & Rensleigh, 2013; Mongeon & Paul-Hus, 2016; Van Leeuwen, 2006), being one of the largest database of peer-reviewed literature, such as scientific journals, books and conference proceedings. The Scopus database provides a comprehensive overview of the research in different fields, such as social sciences (but also science, technology, health, and the humanities). It has 1.4 billion cited references since 1970, around 70,000 institutional and 16 million author profiles. We conducted the data search for our analysis in

January 2021, (i) within the target journals (for analyses of the journals' content from 1988 to 2020, and (ii) across the overall Scopus database for analyses of the impact of and on the target journals. Our search resulted in 1381 documents published in *FBR*, *JFBS* and *JFBM* (from which 1189 are academic articles – excluding editorials, reviews, notes, errata, and conference papers).

To analyze this set of articles, we first used bibliometric indicators (Garfield, 1955) to represent their bibliographic data, as for instance the total number of publications and citations (Ding, Rousseau, & Wolfram, 2014) that typically give an indication of productivity and influence (Svensson, 2010), respectively. Second, we complemented this analysis with a graphical mapping of the bibliometric material (Cobo, López-Herrera, Herrera-Viedma, & Herrera, 2011; Sinkovics & Sinkovics, 2016). To this aim, we exploited the Visualization of Similarities (VOS) viewer software (Van Eck & Waltman, 2009) to provide graphical maps in terms of co-authorship and co-occurrence of authors' keywords (e.g., Martínez-López, Merigó, Valenzuela-Fernández, & Nicolás, 2018; Merigó, Pedrycz, Weber, & de la Sotta, 2018). Co-authorship analysis analyzes the number of co-authored documents to study the social structure and research collaboration networks (Glänzel & Schubert, 2004; Katz & Martin, 1997; White & Griffith, 1981). Co-occurrence analysis draws on the most common keywords used in the document to elaborate the conceptual framework of a research field (Callon, Courtial, Turner, & Bauin, 1983; Courtial, 1994; Ding, Chowdhury, & Foo, 2001). These methods allowed us to provide a comprehensive overview of research published in *FBR*, *JFBS* and *JFBM* based on the number and impact (i.e., citations) of papers, their authors (including institutions and countries), and the topics addressed.

## 3. Results: yesterday and today

### 3.1. Publications and citations structure of family business research

*FBR*, *JFBS* and *JFBM* have published 1381 papers in total over the time period 1988–2020. These papers are associated with a total of 52,970 citations, corresponding to a citations per paper ratio of 38.4. While analyzing the total citations received by each paper, we also considered the number of citations excluding the paper authors' self-citations, as the Scopus database allows to do so<sup>2</sup>. Nevertheless, it is worth noting that overall a significant difference between our analyses including and excluding self-citations did not emerge. By excluding the self-citations, the 1381 papers in the sample received a total of 52,492 citations, corresponding to a citations per paper ratio of 38.0. Table 1 reports the 50 most cited papers on family business research published in *FBR*, *JFBS* and *JFBM* according to the Scopus database (both with and without self-citations).

The most cited paper was published in *FBR* by Habbershon and Williams (1999), and dealt with the use of resource-based view to assess the strategic advantages of family firms. This article has 995 citations (992 excluding s.-c.), which is a very high number compared to the 338.6 citations (336.6 excluding s.-c.) received on average by all the 50 most cited papers in *FBR*, *JFBS* and *JFBM*; moreover, only 30 % of the 50 most cited papers (i.e., 15 papers) have a number of citations above the average. The second and third top-50 articles, which have both more than 800 citations – 824 (816 excluding s.-c.) and 779 citations (775 excluding s.-c.), respectively – are one of the seminal *socioemotional wealth* papers – also providing directions for future research – by Berone, Cruz, and Gomez-Mejia (2012), and an overview of the field with directions for future research by Sharma (2004); the former is also the paper with the highest number of citations per year, which is equal to 103.0 (102.0 excluding s.-c.).

Because *JFBS* and *JFBM* were founded later in time as compared to

<sup>1</sup> 1988 is the year when the first of family business dedicated journal (i.e., *FBR*) was founded.

<sup>2</sup> Data retrieved on January 19, 2021; for brevity, we refer to self-citations as "s.-c.".

**Table 1**Top 50 most cited articles published in *FBR*, *JFBS* and *JFBM*.

R	Title	Author(s)	Source	Year	TC	TC/Y	TC (w/oSC)	TC(w/oSC)/Y
1	A resource-based framework for assessing the strategic advantages of family firms	Habbershon T.G., Williams M.L.	FBR	1999	995	47.4	992	47.2
2	Socioemotional Wealth in Family Firms: Theoretical Dimensions, Assessment Approaches, and Agenda for Future Research	Berrone P., Cruz C., Gomez-Mejia L.R.	FBR	2012	824	103.0	816	102.0
3	An Overview of the Field of Family Business Studies: Current Status and Directions for the Future	Sharma P.	FBR	2004	779	48.7	775	48.4
4	Family governance and firm performance: Agency, stewardship, and capabilities	Miller D., Le Breton-Miller I.	FBR	2006	585	41.8	582	41.6
5	Entrepreneurial risk taking in family firms	Zahra S.A.	FBR	2005	577	38.5	574	38.3
6	Entrepreneurial orientation, risk taking, and performance in family firms	Naldi L., Nordqvist M., Sjoberg K., Wiklund J.	FBR	2007	565	43.5	562	43.2
7	Bivalent attributes of the family firm	Tagiuri R., Davis J.	FBR	1996	543	22.6	542	22.6
8	The F-PEC Scale of Family Influence: A Proposal for Solving the Family Business Definition Problem	Astrachan J.H., Klein S.B., Smyrnios K.X.	FBR	2002	542	30.1	538	29.9
9	Strategic management of the family business: Past research and future challenges	Sharma P., Chrisman J.J., Chua J. H.	FBR	1997	511	22.2	510	22.2
10	Examining the "family effect" on firm performance	Dyer Jr. W.G.	FBR	2006	473	33.8	471	33.6
11	The Succession Process from a Resource- and Knowledge-Based View of the Family Firm	Cabrera-Suarez K., De Saa-Perez P., Garcia-Almeida D.	FBR	2001	473	24.9	471	24.8
12	Family Businesses' Contribution to the U.S. Economy: A Closer Look	Astrachan J.H., Shanker M.C.	FBR	2003	447	26.3	447	26.3
13	Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers	Sarstedt M., Ringle C.M., Smith D., Reams R., Hair J.F.	JFBS	2014	415	69.2	404	67.3
14	An Empirical Examination of Ownership Structure in Family and Professionally Managed Firms	Daily C.M., Dollinger M.J.	FBR	1992	410	14.6	409	14.6
15	Succession in Family Business: A Review of the Research	Handler W.C.	FBR	1994	381	14.7	379	14.6
16	Myths and realities: Family businesses' contribution to the US economy- a framework for assessing family business statistics	Shanker M.C., Astrachan J.H.	FBR	1996	330	13.8	328	13.7
17	Are Family Businesses Really Different? European Experiences from STRATOS	Donckels R., Frohlich E.	FBR	1991	316	10.9	316	10.9
18	The Succession Conspiracy	Lansberg I.	FBR	1988	312	9.8	311	9.7
19	Growing the family business: Special challenges and best practices	Ward J.L.	FBR	1997	309	13.4	309	13.4
20	Internationalization strategy of small and medium-sized family businesses: Some influential factors	Fernandez Z., Nieto M.J.	FBR	2005	308	20.5	306	20.4
21	Exploring the concept of familiness: Introducing family firm identity	Zellweger T.M., Eddleston K.A., Kellermanns F.W.	JFBS	2010	285	28.5	282	28.2
22	Methodological Issues and Considerations in Studying Family Businesses	Handler W.C.	FBR	1989	276	8.9	274	8.8
23	Relational and Contractual Governance in Family Firms: Effects on Strategic Decision Making	Mustakallio M., Autio E., Zahra S. A.	FBR	2002	267	14.8	266	14.8
24	Factors preventing intra-family succession	De Massis A., Chua J.H., Chrisman J.J.	FBR	2008	264	22.0	263	21.9
25	Why Can't a Family Business Be More Like a Nonfamily Business?: Modes of Professionalization in Family Firms	Stewart A., Hitt M.A.	FBR	2012	263	32.9	262	32.8
26	An exploratory study of family member characteristics and involvement: Effects on entrepreneurial behavior in the family firm	Kellermanns F.W., Eddleston K.A., Barnett T., Pearson A.	FBR	2008	261	21.8	260	21.7
27	On the Goals of Successful Family Companies	Tagiuri R., Davis J.A.	FBR	1992	250	8.9	249	8.9
28	Family involvement in ownership and management: Exploring nonlinear effects on performance	Sciascia S., Mazzola P.	FBR	2008	247	20.6	245	20.4
29	On the emotional value of owning a firm	Zellweger T.M., Astrachan J.H.	FBR	2008	247	20.6	247	20.6
30	Family firm performance: Further evidence	Lee J.	FBR	2006	246	17.6	245	17.5
31	Family Business Research: A Strategic Reflection	Zahra S.A., Sharma P.	FBR	2004	246	15.4	243	15.2
32	Family ownership, board independence, and R&D investment	Chen H.-L., Hsu W.-T.	FBR	2009	241	21.9	238	21.6
33	Succession and Nonsuccession Concerns of Family Firms and Agency Relationship with Nonfamily Managers	Chua J.H., Chrisman J.J., Sharma P.	FBR	2003	238	14.0	233	13.7
34	Ownership and management issues associated with family firm performance and company objectives	Westhead P., Howorth C.	FBR	2006	236	16.9	235	16.8
35	A Neglected Factor Explaining Family Business Success: Human Resource Practices	Astrachan J.H., Kolenko T.A.	FBR	1994	236	9.1	235	9.0
36	A research model of sustainable family businesses	Stafford K., Duncan K.A., Dane S., Winter M.	FBR	1999	235	11.2	234	11.1
37	The Family Business: Toward Definitional Clarity	Litz R.A.	FBR	1995	222	8.9	220	8.8
38	Emotional returns and emotional costs in privately held family businesses: Advancing traditional business valuation	Astrachan J.H., Jaskiewicz P.	FBR	2008	219	18.3	219	18.3
39	Research on Technological Innovation in Family Firms: Present Debates and Future Directions	De Massis A., Frattini F., Lichtenthaler U.	FBR	2013	214	30.6	211	30.1
40	Time horizon, costs of equity capital, and generic investment strategies of firms	Zellweger T.	FBR	2007	214	16.5	212	16.3
41	The Board of Directors in Family Firms: One Size Fits All?	Corbetta G., Salvato C.A.	FBR	2004	211	13.2	211	13.2
42	From Longevity of Firms to Transgenerational Entrepreneurship of Families: Introducing Family Entrepreneurial Orientation	Zellweger T.M., Nason R.S., Nordqvist M.	FBR	2012	200	25.0	199	24.9
43	Enterprising Families Domain: Family-Influenced Ownership Groups in Pursuit of Transgenerational Wealth	Habbershon T.G., Pistrui J.	FBR	2002	192	10.7	191	10.6
44	A comparative study of CB-SEM and PLS-SEM for theory development in family firm research	Astrachan C.B., Patel V.K., Wanzenried G.	JFBS	2014	192	32.0	186	31.0

(continued on next page)

Table 1 (continued)

R	Title	Author(s)	Source	Year	TC	TC/Y	TC (w/oSC)	TC(w/oSC)/Y
45	Achieving sustained competitive advantage: A family capital theory	Hoffman J.J., Hoelscher M.L., Sorenson R.L.	FBR	2006	191	13.6	191	13.6
46	Succession Planning as Planned Behavior: Some Empirical Results	Sharma P., Chrisman J.J., Chua J. H.	FBR	2003	191	11.2	190	11.2
47	Entrepreneurship as Radical Change in the Family Business: Exploring the Role of Cultural Patterns	Hall A., Melin L., Nordqvist M.	FBR	2001	190	10.0	190	10.0
48	The Special Role of Strategic Planning for Family Businesses	Ward J.L.	FBR	1988	188	5.9	188	5.9
49	Internationalizing the Family Business: Facilitating and Restraining Factors	Gallo M.A., Sveen J.	FBR	1991	187	6.4	186	6.4
50	Determinants of the internationalization pathways of family firms: An examination of family influence	Graves C., Thomas J.	FBR	2008	186	15.5	185	15.4

Abbreviations: R = Rank; TC = Total citations; TC/Y = Total citations per year; TC(w/oSC) = Total citations excluding self-citations; TC(w/oSC)/Y = Total citations excluding self-citations per year.

*FBR*, these two journals currently find a more limited space among the top 50 most cited articles. More specifically, three of these most-cited papers have been published on *JFBS*. The method paper by Sarstedt, Ringle, Smith, Reams, and Hair (2014), which introduced the use of Partial Least Squares (PLS) structural equation modeling to the study of family business, received so far 415 citations (404 excluding s.-c.), ranks 13th and it is among the top articles by citations per year. Indeed, while the average citations per year is 23.05 (22.87 excluding s.-c.), Sarstedt et al. (2014) performed exordarily well, achieving 69.2 citations per year (67.3 excluding s.-c.), and being second only to the aforementioned Berrone et al. (2012). The second paper in the list published in *JFBS* is Zellweger, Eddleston, and Kellermanns (2010), which explored the familiness construct and introduced organizational identity as its third dimension; this article ranks 21th with 285 citations (282 excluding s.-c.). The third paper from *JFBS* is Astrachan et al. (2014), a comparative study of CB-SEM and PLS-SEM for theory development in family firm research; this paper ranks as 44th with 192 citations (186 excluding s.-c.). No paper published in *JFBM* is instead among the top 50 most cited articles yet.

Going deeper into the distribution of the most cited papers over time, Table 2 reports the 20 most cited articles that have been published in *FBR*, *JFBS* and *JFBM* in two specific sub-periods, which we defined considering the inception of *JFBS* in 2010 as a divide. We labelled these sub-periods as follows<sup>3</sup>: “emergence” (1988–2009) and “expansion” (2010–2020). Reasonably, the papers published in the last decade received, to date, the lowest number of citations, both in total and on average. Two exceptions are the papers by Berrone et al. (2012), which received 103.0 citations per year (102.0 excluding s.-c.), and Sarstedt et al. (2014), with 69.2 citations per year (67.3 excluding s.-c.). In detail, 9,399 (17.74 %) (9,362, 17.83 % excluding s.-c.) of the total citations received by family business research in *FBR*, *JFBS* and *JFBM* come from the 20 most cited papers published in *FBR* between 1988 and 2007; these papers have 469.3 citations (468.1 excluding s.-c.) on average and an average of 25.1 citations per year (24.95 excluding s.-c.). A total of 4250 citations (4200 excluding s.-c.) derive instead from the 20 most cited papers published since the inception of *JFBS*, thus in the period 2010–2020. These papers have an average number of citations equal to 212.5 (210.0 excluding s.-c.) and, despite being more recent, a greater average number of citations per year (i.e., 26.81, 26.47 excluding s.-c.)

<sup>3</sup> We labeled the first period as “emergence” because, since the inception of *FBR* in 1988, the research produced on family business started to attract scholarly attention, and contributed to set the foundations and establish family business as an academic discipline; we instead labelled the second period as “expansion” because the inception of *JFBS* in 2010 (and then of *JFBM* in 2011) provided the opportunity to family business research to further expand both in terms of academic audience and implications for a number of other fields, allowing to consolidate its relevance and acquire legitimacy within the broader management field and other social science disciplines.

than those published in the emergence period. This latter result is probably driven by the publication in this period of both the first and the second top 50 most cited articles (i.e., Berrone et al., 2012; Sarstedt et al., 2014) and the creation of two new specialized journals (i.e., *JFBS* and *JFBM*). The greater average number of citations per year registered in the expansion period provides a clear signal of how these two journals, especially *JFBS*, contributed to further expand the family business field and increase interest towards it. 35 % (i.e., 7 over 20) of the most cited articles in the expansion phase have been indeed published in *JFBS*; these papers have 211.9 citations on average (208.1 excluding s.-c.) (vs. 212.8 average citations and 211.0 average citations excluding s.-c. of *FBR* papers in the same period) and 28.6 average citations per year (28.0 excluding s.-c.) (vs. 25.8 average citations per years and 25.6 average citations excluding s.-c. per year of *FBR* papers in the same period). Finally, Table 3 reports the annual citation structure of the papers.

While the number of papers published per year is rather stable, growing only slowly over time (with an average of 27.54 before 2010, 49 papers in 2010, and 72.6 after 2010), the number of citations that papers received increased steadily over the years, as depicted in Fig. 1. Analyzing citations excluding self-citations (Table 3), the average number of citations per year is 50.6 per paper. Almost one fourth of the papers (22.1 %, 305 papers) received at least 50 citations, and almost half (41.0 %, 566) at least 20 citations overall. Instead, only 10.1 % of papers (140) received more than 100 citations; 14 of these papers have been published in 2008, 11 in 2010, 9 in 2009, and additional 9 papers in 2004. The peak in terms of total number of citations has been achieved in 2010 (3009 total citations) and 2012 (2999 total citations), thanks to the inception of *JFBS* in 2010 (1461 citations obtained by papers published in this journal in 2010) and an exceptionally high number of citations received by papers published in *FBR* in 2010 (i.e., 1,548). Between 2004 and 2008, there has been instead an increase in the average number of citations per year, which almost doubled in 2004 compared to previous years and achieved the peak of 127.1 citations per published paper in 2006. This increase of interest toward family business research published in *FBR* might have served as stimulus to lay the foundations for the creation of *JFBS* and *JFBM* few years later.

### 3.2. Leading authors, institutions and countries

In this section, we analyze the authors, institutions, and countries that have contributed most to family business research published in *FBR*, *JFBS* and *JFBM*. Table 4 reports the 20 most productive authors in *FBR*, *JFBS* and *JFBM*, identified through their average number of published articles per year, beginning in the year in which they published their first paper in one of these three family business journals.

As observed, 6 authors (30 %) published, on average, at least one paper per year in *FBR*, *JFBS* and *JFBM*, another 4 authors (20 %) publishing more than one. The most productive author is Franz W. Kellermanns, who holds 29 publications since his first publication in *FBR* in



**Table 2**Temporal evolution of the most cited articles published in *FBR*, *JFBS* and *JFBM*.

Emergence phase (1988–2009)								
R	Title	Author(s)	Source	Year	TC	TC/ Y	TC(w/ oSC)	TC(w/ oSC)/Y
1	A resource-based framework for assessing the strategic advantages of family firms	Habbershon T.G., Williams M.L.	FBR	1999	995	47.4	992	47.2
2	An Overview of the Field of Family Business Studies: Current Status and Directions for the Future	Sharma P.	FBR	2004	779	48.7	775	48.4
3	Family governance and firm performance: Agency, stewardship, and capabilities	Miller D., Le Breton-Miller I.	FBR	2006	585	41.8	582	41.6
4	Entrepreneurial risk taking in family firms	Zahra S.A.	FBR	2005	577	38.5	574	38.3
5	Entrepreneurial orientation, risk taking, and performance in family firms	Naldi L., Nordqvist M., Sjöberg K., Wiklund J.	FBR	2007	565	43.5	562	43.2
6	Bivalent attributes of the family firm	Tagiuri R., Davis J.	FBR	1996	543	22.6	542	22.6
7	The F-PEC Scale of Family Influence: A Proposal for Solving the Family Business Definition Problem	Astrachan J.H., Klein S.B., Smyrniotis K.X.	FBR	2002	542	30.1	538	29.9
8	Strategic management of the family business: Past research and future challenges	Sharma P., Chrisman J.J., Chua J. H.	FBR	1997	511	22.2	510	22.2
9	Examining the "family effect" on firm performance	Dyer Jr. W.G.	FBR	2006	473	33.8	471	33.6
10	The Succession Process from a Resource- and Knowledge-Based View of the Family Firm	Cabrera-Suarez K., De Saa-Perez P., Garcia-Almeida D.	FBR	2001	473	24.9	471	24.8
11	Family Businesses' Contribution to the U.S. Economy: A Closer Look	Astrachan J.H., Shanker M.C.	FBR	2003	447	26.3	447	26.3
12	An Empirical Examination of Ownership Structure in Family and Professionally Managed Firms	Daily C.M., Dollinger M.J.	FBR	1992	410	14.6	409	14.6
13	Succession in Family Business: A Review of the Research	Handler W.C.	FBR	1994	381	14.7	379	14.6
14	Myths and realities: Family businesses' contribution to the US economy- a framework for assessing family business statistics	Shanker M.C., Astrachan J.H.	FBR	1996	330	13.8	328	13.7
15	Are Family Businesses Really Different? European Experiences from STRATOS	Donckels R., Frohlich E.	FBR	1991	316	10.9	316	10.9
16	The Succession Conspiracy	Lansberg I.	FBR	1988	312	9.8	311	9.7
17	Growing the family business: Special challenges and best practices	Ward J.L.	FBR	1997	309	13.4	309	13.4
18	Internationalization strategy of small and medium-sized family businesses: Some influential factors	Fernandez Z., Nieto M.J.	FBR	2005	308	20.5	306	20.4
19	Methodological Issues and Considerations in Studying Family Businesses	Handler W.C.	FBR	1989	276	8.9	274	8.8
20	Relational and Contractual Governance in Family Firms: Effects on Strategic Decision Making	Mustakallio M., Autio E., Zahra S. A.	FBR	2002	267	14.8	266	14.8
Expansion phase (2010–2020)								
R	Title	Author(s)	Source	Year	TC	TC/Y	TC(w/ oSC)	TC(w/ oSC)/Y
1	Socioemotional Wealth in Family Firms: Theoretical Dimensions, Assessment Approaches, and Agenda for Future Research	Berrone P., Cruz C., Gomez-Mejia L.R.	FBR	2012	824	103.0	816	102.0
2	Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers	Sarstedt M., Ringle C.M., Smith D., Reams R., Hair J.F.	JFBS	2014	415	69.2	404	67.3
3	Exploring the concept of familiness: Introducing family firm identity	Zellweger T.M., Eddleston K.A., Kellermanns F.W.	JFBS	2010	285	28.5	282	28.2
4	Why Can't a Family Business Be More Like a Nonfamily Business?: Modes of Professionalization in Family Firms	Stewart A., Hitt M.A.	FBR	2012	263	32.9	262	32.8
5	Research on Technological Innovation in Family Firms: Present Debates and Future Directions	De Massis A., Frattini F., Lichtenthaler U.	FBR	2013	214	30.6	211	30.1
6	From Longevity of Firms to Transgenerational Entrepreneurship of Families: Introducing Family Entrepreneurial Orientation	Zellweger T.M., Nason R.S., Nordqvist M.	FBR	2012	200	25.0	199	24.9
7	A comparative study of CB-SEM and PLS-SEM for theory development in family firm research	Astrachan C.B., Patel V.K., Wanzenried G.	JFBS	2014	192	32.0	186	31.0
8	Intellectual foundations of current research in family business: An identification and review of 25 influential articles	Chrisman J.J., Kellermanns F.W., Chan K.C., Liano K.	FBR	2010	178	17.8	177	17.7
9	The internationalization of family businesses: A review of extant research	Kontinen T., Ojala A.	JFBS	2010	163	16.3	162	16.2
10	The Internationalization of Family Firms: A Critical Review and Integrative Model	Pukall T.J., Calabro A.	FBR	2014	159	26.5	157	26.2
11	Strategy in family business: Toward a multidimensional research agenda	Astrachan J.H.	JFBS	2010	152	15.2	151	15.1
12	The case study method in family business research: Guidelines for qualitative scholarship	De Massis A., Kotlar J.	JFBS	2014	150	25.0	148	24.7
13	A configurational approach of the relationship between entrepreneurial orientation and growth of family firms	Casillas J.C., Moreno A.M., Barbero J.L.	FBR	2010	146	14.6	145	14.5
14	25 Years of Family Business Review: Reflections on the Past and Perspectives for the Future	Sharma P., Chrisman J.J., Gersick K.E.	FBR	2012	145	18.1	144	18.0
15	The Landscape of Family Business Outcomes: A Summary and Numerical Taxonomy of Dependent Variables	Yu A., Lumpkin G.T., Sorenson R. L., Brigham K.H.	FBR	2012	142	17.8	142	17.8
16	The Influence of Family Ownership on the Quality of Accounting Information	Cascino S., Pugliese A., Mussolino D., Sansone C.	FBR	2010	132	13.2	131	13.1
17	Family business and financial performance: Current state of knowledge and future research challenges	Mazzi C.	JFBS	2011	126	14.0	124	13.8
18	Family business succession and its impact on financial structure and performance	Molly V., Laveren E., Deloof M.	FBR	2010	123	12.3	121	12.1
19		Block J.	FBR	2010	123	12.3	121	12.1

(continued on next page)

Table 2 (continued)

Expansion phase (2010–2020)								
R	Title	Author(s)	Source	Year	TC	TC/Y	TC(w/oSC)	TC(w/oSC)/Y
20	Family management, family ownership, and downsizing: Evidence from S&P 500 firms Research on accounting in family firms: Past accomplishments and future challenges	Salvato C., Moores K.	FBR	2010	118	11.8	117	11.7

Abbreviations: R = Rank; TC = Total citations; TC/Y = Total citations per year; TC(w/oSC) = Total citations excluding self-citations; TC(w/oSC)/Y = Total citations excluding self-citations per year.

2008, with an average of 2.4 papers per year. The most cited scholar is instead Joseph H. Astrachan with a total of 2,947 citations (2816 excluding s.-c.), followed by James J. Chrisman with 2560 citations (2305 excluding s.-c.). The three scholars are those with the highest author's *h*-index<sup>4</sup>: James J. Chrisman with the highest *h*-index equal to 19, Franz W. Kellermanns with an 18 *h*-index, and then Joseph H. Astrachan with the an *h*-index of 15. The family business scholar with the highest ratio of citations per paper is instead Pramodita Sharma (267.9 citations excluding s.-c. per paper), followed by Joseph H. Astrachan (134.1 citations excluding s.-c. per paper).

Fig. 2 provides a graphical representation of the co-authorships among the most productive authors, with a minimum threshold of 5 co-authored papers<sup>5</sup> and the 77 most representative co-authorship connections.<sup>6</sup> Joseph H. Astrachan, Franz W. Kellermanns, James J. Chrisman, Danny Miller and Ivan Lansberg are the top-five authors who co-authored the greatest amount of papers, respectively (see nodes with larger sizes), with the authors with whom they are connected by arcs. They are also the major gatekeepers among all *FBR*, *JFBS* and *JFBM* authors, which are grouped in 11 major and connected groups (see the different colors in the graph).

The interconnected authors that showed closest collaborations are grouped in specific clusters (e.g., the cluster formed by Wim Voordeckers – in orange – shows close collaborations of this key group's author with Frank Lambrechts and Tensie Steijvers). Among the authors, Franz W. Kellermanns grouped 8 co-authors (red cluster), followed by Rodrigo Basco (green) with 7 co-authors, Danny Miller (blue) and Isabel C. Botero with 6 co-authors each, Pramodita Sharma (violet) and G. Tyge Payne (light blue) with 5 co-authors each.

Table 5 lists the 20 most productive institutions ranked according to the total number of papers published in *FBR*, *JFBS* and *JFBM* per total publications of an institution in the Business, Management and Accounting (BMA) area in Scopus. If we consider the total number of papers published, Mississippi State University (38 papers by affiliated authors at the time of publication) and WHU - Otto Beisheim School of Management (38) are in the first position as the most productive institutions in *FBR*, *JFBS* and *JFBM*, followed by Kennesaw State University (28), and the University of Alberta (28). Nevertheless, a different picture emerges when looking at the ratio of total papers over total papers published by an institution in the Business, Management and Accounting (BMA) area in Scopus. In this case, the ranking is headed by a US-American institution, Stetson University (with a ratio 0.0884 papers per total papers in the BMA area), followed by the German institution Witten/Herdecke University (0.0760), and the Belgian institution Hasselt University (0.0473). What emerges is that comparatively smaller universities seem to outperform their larger counterparts. Nevertheless, it should be noted that these ratios consider the total number of articles

an institution possesses in the BMA area indexed in Scopus. In terms of total output, 9 of the 20 (45 %) most productive institutions are from the United States. Even more so, 60 % of the top productive institutions within this top 20 list of institutions are from North America, only 30 % from Europe, and 5 % from Australia (and none from any other part of the world). Considering citations, Kennesaw State University is the most cited institution (3097 total citations excluding s.-c.), while the Canadian University of Calgary can be considered as the most influential one, with 129.50 citations excluding s.-c. per paper.

Finally, we analyzed the 20 most productive countries (see Table 6). In line with prior results, North America is leading in terms of total papers published. Indeed, the most productive country is the US, which counts 630 papers in *FBR*, *JFBS* and *JFBM*, being cited 30,235 times (excluding s.-c.), followed by Germany (119 papers and 4,310 citations excluding s.-c.). However, these two countries are not leading in terms of number of citations per paper. Indeed, while they counts 47.99 and 36.22 citations per paper, respectively, this ratio is at its maximum for Canada (63.74), followed by Switzerland (57.61) and Finland (54.44). Nine countries (45 %) reported a ratio of total authors per total papers higher than 2, and only US reported the same ratio lower than 1. The US is the country that has higher total citations per total number of authors (196.33); all other countries have a ratio lower than 50.

Finally, Fig. 3 represents the network of co-authorships among countries, with a minimum threshold of 5 co-authored papers<sup>7</sup> and the 29 most representative co-authorship connections<sup>8</sup>. Consistent with previous results, it is clear also from this figure that the US has been the most productive country so far, as well as the one with the highest number of connections with other countries, mainly with Germany, Canada and Switzerland. Germany, Canada, and the United Kingdom showed also high number of co-authored papers and are embedded in connections with several countries, followed by Spain. Canada presented a high number of co-authored papers, but few connections with other countries of the network. Countries out of the North American-European axis appeared in peripheral areas of the network, representing small contributions both in terms of number of papers and of connections with mainstream countries (such as Malaysia, Singapore, Mexico, Taiwan, Chile and Georgia).

### 3.3. Topics of interest

In this section, we present what are the key topics of interest published in *FBR*, *JFBS* and *JFBM* by analyzing the *author keywords* of the papers published in these outlets. Fig. 4 represents the network of co-occurrences of authors' keywords with a minimum threshold of 6 papers with the same keywords<sup>9</sup> and the 58 most representative co-

<sup>4</sup> Author's *h*-index reported considers articles published in *FBR*, *JFBS* and *JFBM* and their citations.

<sup>5</sup> This means that only the authors that appear in at least 5 papers are represented in the graph.

<sup>6</sup> This means that the graph represents the 77 links with highest co-authorship value; the value of each link is the number of papers co-authored by the two authors linked.

<sup>7</sup> This means that only the countries that appear in at least 5 papers are represented in the graph.

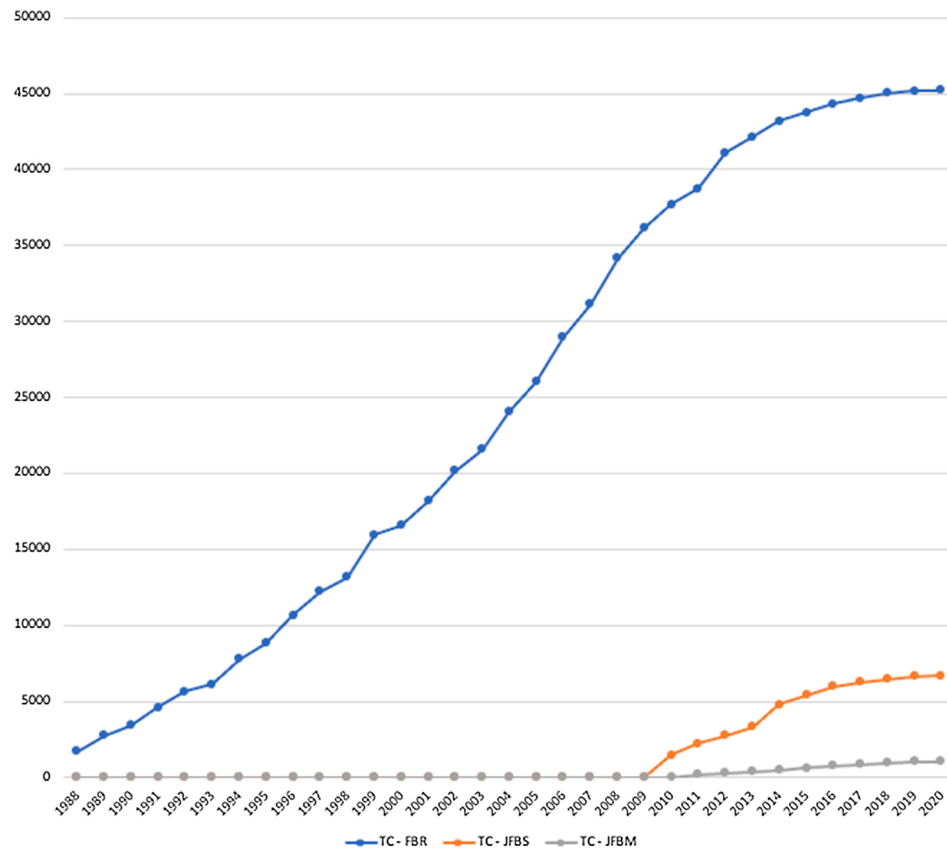
<sup>8</sup> This means that the graph represents the 127 links with highest co-authorship value; the value of each link is the number of papers co-authored by authors affiliated to institution located in the two countries linked.

<sup>9</sup> This means that only the keywords that appear in at least 6 papers are represented in the graph.

**Table 3**  
Annual citation structure of family business research published in *FBR*, *JFBS* and *JFBM*.

Year	TP	TP	TP	TP	TC	TC	TC	TC	TC(w/	TC(w/	TC(w/	TC(w/	TC(w/	TC(w/	TC(w/	TC(w/	TC(w/	≥100	≥50	≥20	≥10	≥5	≥1
		FBR	JFBS	JFBM		FBR	JFBS	JFBM	oSC)	oSC)	oSC)	oSC)	oSC)/TP	oSC)/TP	oSC)/TP	oSC)/TP	oSC)/TP						
2020	119	30	32	57	92	39	31	22	78	30	27	21	0.7	1.0	0.8	0.4	0	0	0	0	2	41	
2019	101	21	36	44	398	129	174	95	366	118	165	83	3.6	5.6	4.6	1.9	0	0	1	9	32	80	
2018	72	27	27	18	658	352	196	110	629	339	185	105	8.7	12.6	6.9	5.8	0	0	10	26	43	63	
2017	61	21	22	18	781	400	288	93	749	386	275	88	12.3	18.4	12.5	4.9	0	1	13	26	43	54	
2016	60	16	26	18	1210	524	562	124	1170	507	544	119	19.5	31.7	20.9	6.6	0	7	19	32	38	55	
2015	69	29	23	17	1370	588	617	165	1335	569	604	162	19.3	19.6	26.3	9.5	0	6	24	46	53	65	
2014	72	22	38	12	2641	1063	1503	75	2582	1046	1465	71	35.9	47.5	38.6	5.9	4	15	36	51	61	67	
2013	55	22	25	8	1643	1015	547	81	1621	1001	542	78	29.5	45.5	21.7	9.8	2	9	27	38	44	51	
2012	58	23	24	11	3029	2373	539	117	2999	2355	530	114	51.7	102.4	22.1	10.4	5	14	34	44	51	56	
2011	59	23	24	12	1988	1052	744	192	1963	1038	734	191	33.3	45.1	30.6	15.9	3	16	37	45	51	53	
2010	49	25	24	–	3036	1562	1474	–	3009	1548	1461	–	61.4	61.9	60.9	–	11	22	38	42	44	45	
2009	33	33	–	–	1973	1973	–	–	1963	1963	–	–	59.5	59.5	–	–	9	15	23	25	27	30	
2008	27	27	–	–	2999	2999	–	–	2988	2988	–	–	110.7	110.7	–	–	14	20	22	22	22	23	
2007	21	21	–	–	2215	2215	–	–	2202	2202	–	–	104.9	104.9	–	–	8	15	20	20	21	21	
2006	23	23	–	–	2937	2937	–	–	2923	2923	–	–	127.1	127.1	–	–	8	15	21	21	21	21	
2005	19	19	–	–	1982	1982	–	–	1975	1975	–	–	103.9	103.9	–	–	5	12	16	19	19	19	
2004	22	22	–	–	2458	2458	–	–	2447	2447	–	–	111.2	111.2	–	–	9	12	17	19	20	21	
2003	26	26	–	–	1410	1410	–	–	1403	1403	–	–	54.0	54.0	–	–	4	7	12	15	17	19	
2002	29	29	–	–	1964	1964	–	–	1947	1947	–	–	67.1	67.1	–	–	6	12	15	17	19	23	
2001	23	23	–	–	1608	1608	–	–	1604	1604	–	–	69.7	69.7	–	–	6	10	16	16	16	18	
2000	11	11	–	–	640	640	–	–	637	637	–	–	57.9	57.9	–	–	2	6	8	8	9	9	
1999	29	29	–	–	2759	2759	–	–	2752	2752	–	–	94.9	94.9	–	–	6	15	21	24	26	27	
1998	37	37	–	–	980	980	–	–	980	980	–	–	26.5	26.5	–	–	2	6	13	22	28	34	
1997	27	27	–	–	1537	1537	–	–	1535	1535	–	–	56.9	56.9	–	–	4	7	12	15	18	21	
1996	31	31	–	–	1872	1872	–	–	1867	1867	–	–	60.2	60.2	–	–	5	11	17	17	18	26	
1995	26	26	–	–	1039	1039	–	–	1036	1036	–	–	39.8	39.8	–	–	3	7	15	15	17	20	
1994	28	28	–	–	1619	1619	–	–	1614	1614	–	–	57.6	57.6	–	–	6	9	12	17	19	21	
1993	32	32	–	–	510	510	–	–	507	507	–	–	15.8	15.8	–	–	0	4	9	13	18	24	
1992	34	34	–	–	1031	1031	–	–	1029	1029	–	–	30.3	30.3	–	–	3	3	7	12	15	27	
1991	33	33	–	–	1165	1165	–	–	1164	1164	–	–	35.3	35.3	–	–	3	8	12	15	16	27	
1990	35	35	–	–	660	660	–	–	658	658	–	–	18.8	18.8	–	–	2	5	9	12	15	28	
1989	29	29	–	–	1040	1040	–	–	1037	1037	–	–	35.8	35.8	–	–	4	6	10	16	17	22	
1988	31	31	–	–	1726	1726	–	–	1723	1723	–	–	55.6	55.6	–	–	6	10	20	22	25	27	

Abbreviations: TP = Total papers; TC = Total citations of *FBR*, *JFBS*, and *JFBM* papers; TC(w/oSC) = Total citations excluding self-citations; TC(w/oSC)/TP = Citations excluding self-citations per paper; ≥100, ≥50, ≥20, ≥10, ≥5, ≥1 = Number of papers with more than/equal 100, 50, 20, 10, 5 and 1 citations, excluding self-citations.



**Fig. 1.** Cumulative number of citations of papers published in *FBR*, *JFBS* and *JFBM*.  
Note: TC = Total citations of *FBR*, *JFBS* and *JFBM* papers.

**Table 4**

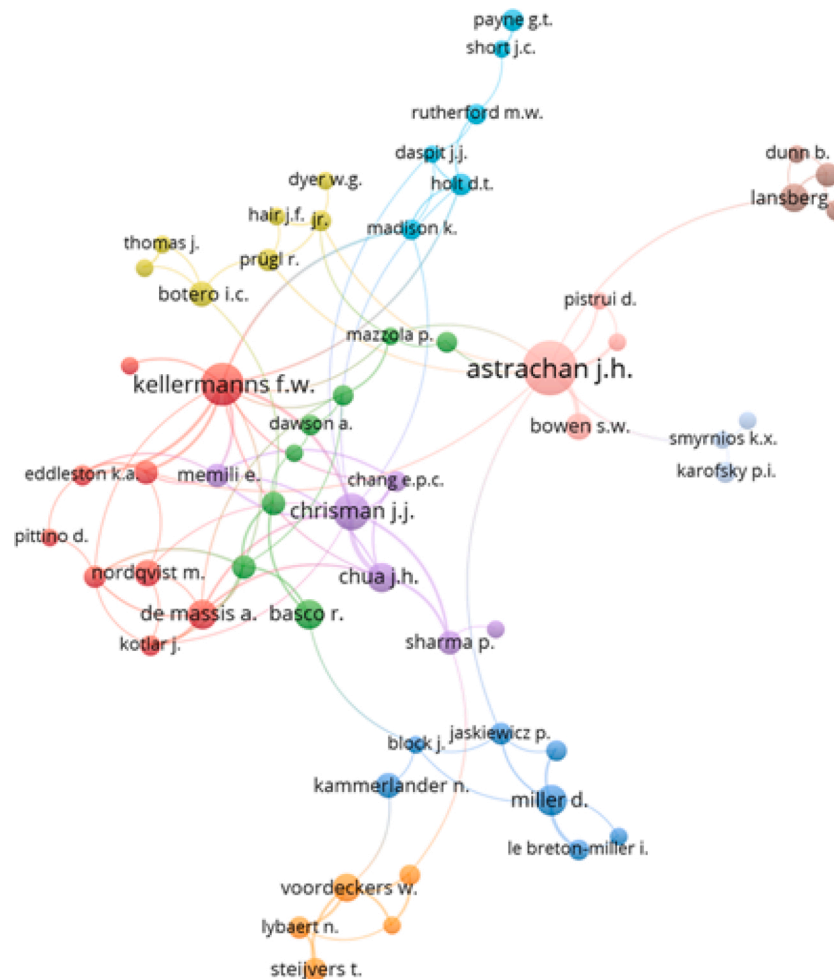
Top 20 most productive authors in *FBR*, *JFBS* and *JFBM* by total papers since year of publication.

R	Author Name	University	Country	TP	TC	TC(w/oSC)	Delta	% Delta	H	TC/TP	TC(w/oSC)/TP	FP	TP/Y
1	Kellermanns, F. W.	U of North Carolina & WHU – Otto Beisheim School of Management	US & Germany	29	1933	1702	231	13.57	18	66.7	58.7	2008	2.4
2	Astrachan, J.H.	Kennesaw State U	US	21	2947	2816	131	4.65	15	140.3	134.1	1988	0.7
3	Chrisman, J.J.	Mississippi State U & U of Alberta	US	20	2560	2305	255	11.06	19	128.0	115.3	1997	0.9
4	De Massis, A.	Free U of Bozen-Bolzano & Lancaster U	Italy & UK	14	943	793	150	18.92	12	67.4	56.6	2008	1.2
5	Craig, J.B.	Northwestern U	US	14	670	612	58	9.48	12	47.9	43.7	2002	0.8
6	Miller, D.	U of Alberta	Canada	14	493	462	31	6.71	11	35.2	33.0	2006	1.0
7	Chua, J.H.	U of Calgary	Canada	13	1885	1720	165	9.59	13	145.0	132.3	1997	0.6
8	Basco, R.	American U of Sharjah	UAE	13	434	331	103	31.12	9	33.4	25.5	2009	1.2
9	Zellweger, T.M.	U of St. Gallen	Switzerland	12	1541	1420	121	8.52	11	128.4	118.3	2007	0.9
10	Ward, J.L.	Northwestern U	US	12	1164	1157	7	0.61	9	97.0	96.4	1988	0.4
11	Botero, I.C.	Stetson U	US	12	206	177	29	16.38	8	17.2	14.8	2013	1.7
12	Danes, S.M.	U of Minnesota	US	11	763	601	162	26.96	9	69.4	54.6	1998	0.5
13	Voordeckers, W.	Hasselt U	Belgium	11	475	444	31	6.98	10	43.2	40.4	2009	1.0
14	Nordqvist, M.	Jonkoping International Business School	Sweden	10	1403	1311	92	7.02	10	140.3	131.1	2001	0.5
15	Dyer, W.G.	Brigham Young U	US	10	1145	1131	14	1.24	9	114.5	113.1	1988	0.3
16	Sorenson, R.L.	U of St. Thomas	US	9	693	664	29	4.37	8	77.0	73.8	1999	0.4
17	Lansberg, I.	Yale U New Haven	US	9	624	618	6	0.97	6	69.3	68.7	1988	0.3
18	Steijvers, T.	Hasselt U	Belgium	9	300	278	22	7.91	7	33.3	30.9	2009	0.8
19	Sharma, P.	U of Vermont	US	8	2249	2143	106	4.95	7	281.1	267.9	1997	0.3
20	Moore, K.	Bond U	Australia	8	534	498	36	7.23	8	66.8	62.3	2000	0.4

Abbreviations: R = Rank; TP = Total papers in *FBR*, *JFBS* and *JFBM*; TC = Total citations of *FBR*, *JFBS* and *JFBM* papers; TC(w/oSC) = Total citations excluding self-citations; Delta = variation between TC and TC(w/oSC); H = h-index (considering publications in *FBR*, *JFBS* and *JFBM*); FP = First publication; TP/Y = Total papers in *FBR*, *JFBS* and *JFBM* per years since first publication in *FBR*, *JFBS* or *JFBM*.

Note: to conduct this analysis we considered only articles, excluding editorials, reviews, notes, erratum, and conference papers. Author affiliations are always the main affiliations according to the author's Scopus profile.





**Fig. 2.** Co-authorship of authors in *FBR*, *JFBS* and *JFBM*.

Note: network analyses made by VOS viewer considered only articles (1189), excluding editorials, reviews, notes, erratum, and conference papers.

occurrences connections<sup>10</sup>. Cleaning procedures were applied and terms related to content and method keywords were deleted, resulting in a network of 50 items, 8 clusters and 294 links (total link strength = 575)<sup>11</sup>. Not surprisingly, the most used keyword by authors is “family business” linked to the most recurrent topics (according to the larger edges): “succession”, “corporate governance”, “socioemotional wealth” (yellow node in the middle of the network), “family ownership”, “firm performance”, “familiness”, “family dynamics”, and “innovation”.

The overlay visualization of VOS viewer allows the identification of earlier keywords (in blue) going to recent keywords (in yellow) used by authors. As represented by the different colors in the figure, “socioemotional wealth”, “succession planning”, “entrepreneurial orientation”, and “innovation” became particularly frequent in the most recent years, showing a move of interest from the basic elements concerning family business (e.g., family ownership and management) to a more in-depth understanding of these firms’ behavioral drivers and functioning (e.g., socioemotional wealth and succession planning). Even more recently, family business scholars started being interested in topics, such as “gender”, “absorptive capacity”, “family firm heterogeneity”, “corporate social responsibility”, and “family control”. Some of these

topics – e.g., gender and CSR – are in line with the increasing interest they received over the last years in the general management literature. Taking inspiration from the general management literature as well as from other related fields such as sociology and psychology, it is possible to identify some topics that articles published in *FBR*, *JFBS* and *JFBM* have not addressed yet, but might be worthy of future investigation. Amongst others, the notion of ‘generation’ has surprisingly been overlooked although it is one of the elements considered to define a family business; again, besides human capital and gender, other individual characteristics might play a relevant role in family firms, such as emotions, personality traits, and other elements concerning micro-foundations and the psychological foundations of family firm management. Finally, while prior research paid attention to elements such as the firm strategy, innovation, entrepreneurship, it seems that family business’ authenticity, marketing and branding, organizational design, and internationalization have been so far disregarded on the three outlet we considered. Adding to these, it also appears that scholars provided limited attention to how family businesses manage and survive to crises. Addressing this topic is relevant especially in this historic moment in which family firms have to face with the severe consequences of the COVID-19 pandemic (e.g., Kraus et al., 2020). We explore more in depth possible future research directions in the next Section 4.2.

The overlay visualization of VOS viewer also allowed the identification of the methods or approaches that are most currently used, even if such methods/approaches are not shown in this visualization (the only exception is “qualitative research”). Based on the VOS output, “case study”, “literature review”, “qualitative research”, and “content

<sup>10</sup> The network totalled 399 links with highest co-occurrence value; the value of each link is the number of papers associated to the two keywords linked.

<sup>11</sup> Deleted terms: “family firms”, “family businesses”, “family business management”, “literature review”, “future research”, “content-analysis”, “case study”, “resource-based view”.

**Table 5**Top 20 most productive institutions in *FBR*, *JFBS* and *JFBM* by total papers published in Business, Management and Accounting area.

R	University	Country	TP	TC	TC/TP	TC (w/oSC)	TC(w/oSC)/TP	AS	TP/AS	ARWU (2020)	QS (2021)	TP BMA (%)	FP	TP/TP BMA
1	Mississippi State U	US	38	2953	77.7	2645	69.6	1,359	0.0280	501-600	(-)	1263 (-)	2003	0.0300
2	WHU - Otto Beisheim School of Management	Germany	38	1620	42.6	1402	36.9	58	0.6552	(-)	(-)	953 (40.2 %)	2009	0.0400
3	Kennesaw State U	US	28	3246	115.9	3097	110.6	1,004	0.0279	(-)	(-)	882 (9.7 %)	1993	0.0320
4	U of Alberta	Canada	28	1851	66.1	1668	59.6	2,764	0.0101	101-150	119	2675 (-)	1997	0.0100
5	Jonkoping International Business School	Sweden	26	1788	68.8	1653	63.6	113	0.2301	(-)	(-)	914 (34.3 %)	2001	0.0280
6	U. of North Carolina at Charlotte	US	22	617	28.1	525	23.9	1,456	0.0151	901-1000	(-)	1478 (3.5 %)	2014	0.0149
7	HEC Montreal	Canada	21	620	29.5	585	27.9	260	0.0808	(-)	(-)	2241 (23.1 %)	1995	0.0094
8	Hasselt U	Belgium	20	732	36.6	696	34.8	1,539	0.0130	601-700	456	422 (-)	2009	0.0473
9	Witten/Herdecke U	Germany	19	792	41.7	713	37.5	303	0.0627	(-)	(-)	250 (-)	2011	0.0760
10	Lancaster U	UK	18	934	51.9	817	45.4	1,872	0.0096	301-400	135	2001 (33.6 %)	2006	0.0090
11	Free U of Bozen-Bolzano	Italy	17	976	57.4	820	48.2	886	0.0192	(-)	(-)	699 (6.8 %)	2016	0.0243
12	U of St. Gallen	Switzerland	17	1789	105.2	1650	97.1	178	0.0955	(-)	428	2356 (24.9 %)	2007	0.0072
13	Loyola U. Chicago	US	16	1793	112.1	1773	110.8	784	0.0204	501-600	801-1000	905 (2.7 %)	1988	0.0176
14	Bocconi U	Italy	16	1021	63.8	971	60.7	837	0.0191	501-600	(-)	2647 (23.2 %)	1995	0.0060
15	Texas Tech U	US	15	1014	67.6	907	60.5	2,554	0.0059	401-500	801-1000	2524 (-)	1999	0.0059
16	U of Calgary	Canada	14	1983	141.6	1813	129.5	1,848	0.0076	151-200	246	2313 (-)	1997	0.0060
17	U of St. Tomas Minnesota	US	14	560	40.0	534	38.1	704	0.0199	(-)	(-)	707 (11.4 %)	1994	0.0198
18	Oregon State U	US	14	757	54.1	708	50.6	2,171	0.0064	201-300	499	1542 (-)	1992	0.0091
19	Stetson U	US	13	207	15.9	187	14.4	265	0.0491	(-)	(-)	147 (6.9 %)	2002	0.0884
20	U of Minnesota Twin Cities	US	13	1038	79.9	857	65.9	3,804	0.0034	40	177	3587 (-)	1998	0.0036

Abbreviations: R = Rank; TP = Total papers in *FBR*, *JFBS*, and *JFBM*; TC = Total citations of *FBR*, *JFBS*, and *JFBM* papers; TC(w/oSC) = Total citations of *FBR*, *JFBS*, and *JFBM* papers excluding self-citations; TC(w/oSC)/TP = Citations excluding self-citations per paper; AS = Total Academic Staff of an institution; ARWU and QS = Ranking in the general ARWU and QS university rankings; TP BMA = Total of an institution's publications in Scopus in the Business, Management and Accounting area; (%) = Percentage from total institution's publications; FP = First publication in *FBR*, *JFBS* or *JFBM*. TP considered only articles (1189).

Note that the papers of authors with multiple affiliations (e.g., Chrisman, De Massis, Kellermanns) have been counted for each of the universities to which they are affiliated although we acknowledge that in a bibliometric analysis there might be some minor inconsistencies due to the dynamic characteristics of the underlying database and the different types of affiliations or authorships of the authors of a scientific document. To conduct this analysis we considered only articles, excluding editorials, reviews, notes, erratum, and conference papers.

analysis" emerge as the most frequently used methods/approaches. This opens up to other methodological approaches that might be used to study family businesses (see Section 4.2).

The keywords have been used differently by authors located in different geographical areas, especially comparing North American and European authors vs Asian ones. Our data also show that North American and European author keywords present quite the same distribution, especially in the top positions (e.g., authors from institutions located in these countries most frequently used keywords such as "family business", "family firm", "socioemotional wealth", and "agency theory"). Keywords used by Asian authors are instead slightly different (e.g., "corporate governance", "family involvement", and "family ownership").

#### 4. Tomorrow: what direction for the future?

##### 4.1. Discussion

Since the inception of *FBR* in 1988 research on family business started to grow, leading to the birth of two additional dedicated journals – i.e., *JFBS* (in 2010) and *JFBM* (in 2011). These two journals, but especially *JFBS*, acted as a boost, allowing family business research to further proliferate and expand. In this article, we offer a comprehensive bibliometric overview of the leading trends of these three journals. Our

study analyzes all the 1381 papers published in *FBR*, *JFBS* and *JFBM* from 1988 to 2020, focusing on the publication and citation structure, leading authors, institutions and countries, topics of interest, and research methods.

The results of our bibliometric analysis indicate that the three family business journals (and thus the family business research field in general) have gained growing resonance over the years, as testified by the increasing number of citations (and also considering the low number of authors' self-citations). The US is the most influential country, with several leading authors of the journals working at North American institutions. Frank W. Kellermanns, Joseph H. Astrachan, and James J. Chrisman are just some examples of the most productive and impactful authors, while Mississippi State University, WHU - Otto Beisheim School of Management, and Kennesaw State University are the most productive institutions.

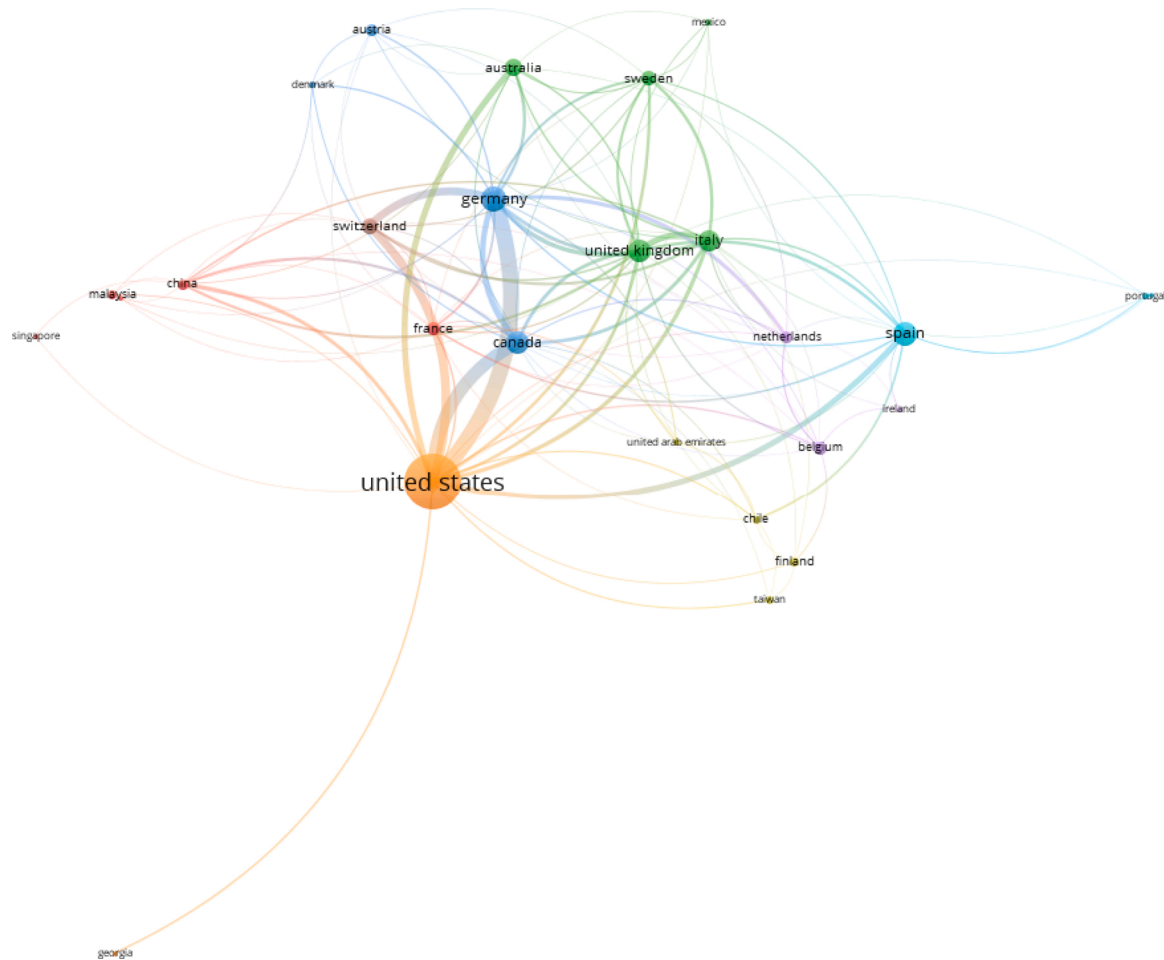
It is worth mentioning that, in aggregate, European countries achieve good results, too: Germany, Spain, UK, Italy, Sweden, Switzerland, and Belgium are all ranked within the top 10 most productive countries. However, authors affiliated at institutions located in these countries do seem to still not have fully unlocked their potential in establishing themselves among the most productive and impactful ones. Some exceptions of influential European family business scholars are Alfredo De Massis (Italy), Wim Voordeckers (Belgium), Mattias Nordqvist (Sweden), and Tensie Steijvers (Belgium).

**Table 6**Top 20 most productive countries in *FBR*, *JFBS* and *JFBM* by total of authors of a country.

R	Country	TP	TC	TC(w/oSC)	TC(w/oSC)/TP	TA	TP/TA	TA/TP	TC/TA	TC(w/oSC)/TA
1	US	630	31597	30235	47.99	154	4.09	0.24	205.18	196.33
2	Germany	119	4809	4310	36.22	151	0.79	1.27	31.85	28.54
3	Canada	117	7949	7457	63.74	153	0.76	1.31	51.95	48.74
4	Spain	104	5736	5504	52.92	149	0.70	1.43	38.50	36.94
5	UK	98	2992	2769	28.26	155	0.63	1.58	19.30	17.86
6	Italy	95	4119	3766	39.64	156	0.61	1.64	26.40	24.14
7	Australia	56	2361	2253	40.23	100	0.56	1.79	23.61	22.53
8	Sweden	46	2295	2114	45.96	80	0.58	1.74	28.69	26.43
9	Switzerland	44	2740	2535	57.61	81	0.54	1.84	33.83	31.30
10	Belgium	38	1420	1349	35.50	66	0.58	1.74	21.52	20.44
11	France	33	772	713	21.61	72	0.46	2.18	10.72	9.90
12	Austria	31	931	871	28.10	50	0.62	1.61	18.62	17.42
13	Netherlands	31	1000	914	29.48	65	0.48	2.10	15.38	14.06
14	China	23	501	465	20.22	67	0.34	2.91	7.48	6.94
15	Finland	16	894	871	54.44	33	0.48	2.06	27.09	26.39
16	Malaysia	15	85	75	5.00	41	0.37	2.73	2.07	1.83
17	Chile	12	567	513	42.75	34	0.35	2.83	16.68	15.09
18	Taiwan	11	534	519	47.18	27	0.41	2.45	19.78	19.22
19	Portugal	10	93	87	8.70	28	0.36	2.80	3.32	3.11
20	Denmark	9	254	231	25.67	19	0.47	2.11	13.37	12.16

Abbreviations: R = Rank; TP = Total papers published in *FBR*, *JFBS* and *JFBM*; TC = Total citations of *FBR*, *JFBS*, and *JFBM* papers; TC(w/oSC) = Total citations excluding self-citations of papers published in *FBR*, *JFBS* and *JFBM*; TA = Total authors of a country that published in *FBR*, *JFBS* and *JFBM*; TP/TA = Total of papers per author of a country that published in *FBR*, *JFBS* and *JFBM*; TA/TP = Total authors of a country that published in *FBR*, *JFBS* and *JFBM* per total of papers. TC(w/oSC)/TA = Total citations excluding self-citations per total authors of a country that published in *FBR*, *JFBS* and *JFBM*.

Note: to conduct this analysis we considered all publications (1381).

**Fig. 3.** Co-authorship of countries in *FBR*, *JFBS* and *JFBM*.

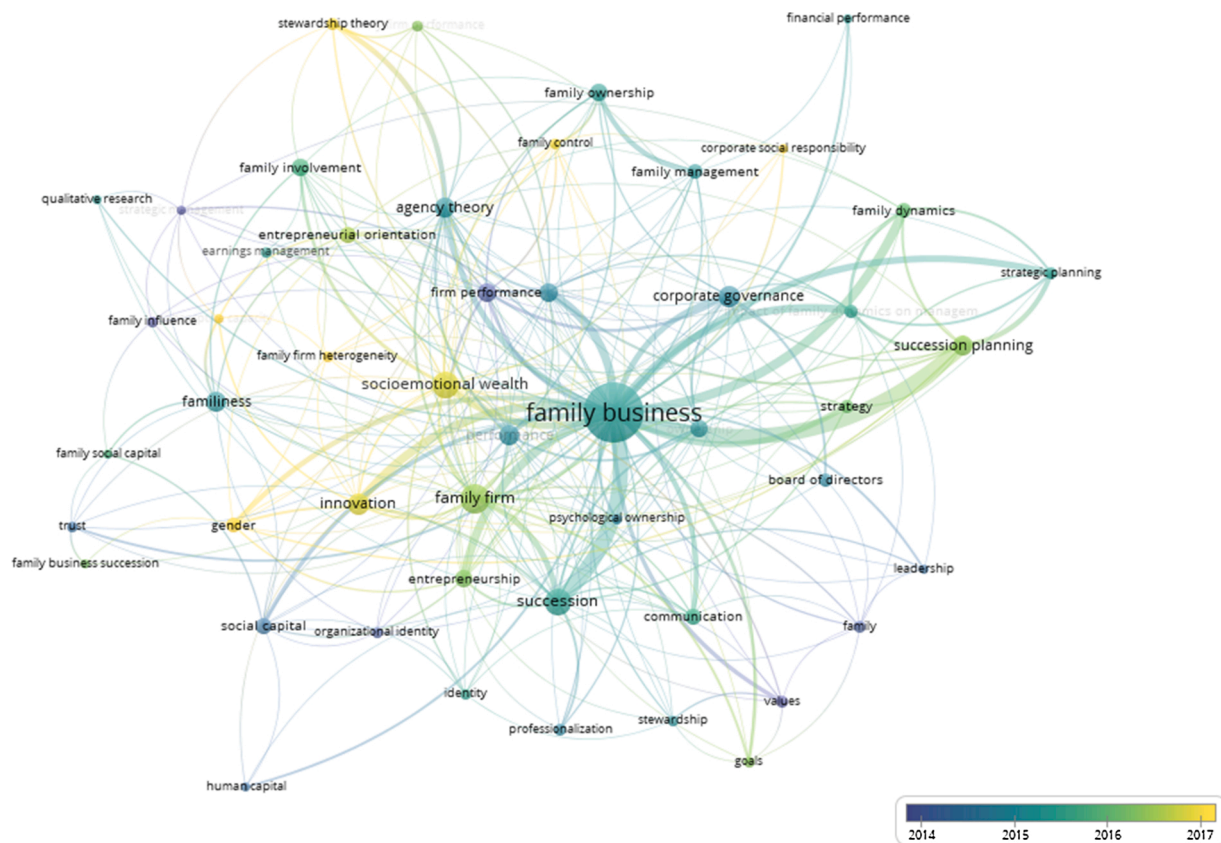


Fig. 4. Co-occurrence of author's keywords in *FBR*, *JFBS* and *JFBM*, and their evolution.

#### 4.2. Avenues for future research

As mentioned above, our bibliometric analysis of *FBR*, *JFBS* and *JFBM* production highlighted gaps that lead the way to interesting directions for future research development, which might be of inspiration for family business scholars. We organized research gaps in four main needs: 1) to examine more in-depth family business heterogeneity, 2) to switch from *what* to *how* and *why* research questions, 3) to draw from other disciplines to investigate new relevant aspects for the family business that currently fall out of the topics addressed by articles published in *FBR*, *JFBS* and *JFBM* – as highlighted by Fig. 4 and discussed above –, and 4) to advance family business research through methodologies. Table 7 summarizes an agenda for future research based on these four directions. This agenda is not exhaustive, but offers in our view some particularly interesting research questions that deserve attention in the future and might be an inspiration to identify additional questions.

The first future research direction refers to the need to take more seriously into account the heterogeneity of family firms. Indeed, as shown in Fig. 4, scholars only relatively recently started to investigate this issue, and more has to be done to understand it fully. The research published in *FBR*, *JFBS* and *JFBM* has so far predominantly addressed family firms as monolithic entities, investigating the differences between family and non-family firms (e.g., Barnett, Eddleston, & Kellermanns, 2009; Gudmundson, Hartman, & Tower, 1999; Madison, Runyan, & Swinney, 2014; Stanley & McDowell, 2014). Only recently, some studies have started acknowledging and unearthing the heterogeneous nature of family firms in more detail (e.g., De Massis, Kotlar, Campopiano, & Cassia, 2013; Dekker, Lybaert, Steijvers, Depaire, & Mercken, 2013; Jaskiewicz & Dyer, 2017). In this respect, additional effort is needed to identify the drivers of such heterogeneity. The drivers that have been so far examined are indeed quite restricted in amount and/or limited to the business system. Therefore, we call for further

research that looks more closely at the family system, considering for instance aspects such as the family's dynamics, conflicts, and tradition. At the same time, we advise scholars to increase their attention towards the consequences of such heterogeneity. Indeed, going deeper in the heterogeneity of family firms may help to better understand the variance in the behaviors and outcomes of family firms, with respect to, for instance, succession, innovation, survival, and transformation into non-family firms.

The papers published in *FBR*, *JFBS* and *JFBM* since 1988 also revealed a massive attention towards answering *what* research questions (e.g., Lindow, Stubner, & Wulf, 2010; Zellweger, Nason, & Nordqvist, 2012). Specifically, scholars addressed family firms' goals, strategies, functioning, and outcomes mainly in terms of *what* family firms do or to *what extent* they differ from their non-family counterparts. While this approach contributed to constitute a knowledge base on this peculiar type of firms (De Massis, Sharma, Chua, & Chrisman, 2012), more has to be done to fully understand them. Some fundamental questions have remained unanswered, which, to be addressed, will require that family business scholars make a shift from *what* to *how* and *why* questions (e.g., Chrisman, Chua, De Massis, Minola, & Vismara, 2016). Only digging deeper in the motivations of and the processes undertaken by family firms, it will be possible to improve the current understanding of their behaviors, functioning, and outcomes.

Apart from these more general aspects, our analysis of the topics addressed by the papers included in our review (Fig. 4) made clear the presence of some relatively unexplored arenas, which could lay the basis for an upcoming *third* phase of family business research – the “*differentiation*” phase, where a high level of acceptance has been achieved and all the foundations have been set, and where the field can dive much deeper into the detailed exploration of in-depth topics and methods, like older fields of research have done before. Prior research published in *FBR*, *JFBS* and *JFBM* has mainly studied family business drawing on a narrow set of disciplines within the management field, such as entrepreneurship

**Table 7**  
Selected questions for future research in family business.

Direction	Sub-direction	Questions for future research
Examining more in-depth family business heterogeneity	Heterogeneity drivers	<ul style="list-style-type: none"> <li>• What types of family firms can be identified with respect to, for instance, family's tradition, size, and internat conflict?</li> <li>• Do multiple generations' involvement and family dynamics affect family firms' heterogeneity?</li> <li>• Does ownership professionalization affect existing family businesses's typologies and taxonomies?</li> <li>• Can alternative types of family firms be identified analysing their organizational choices?</li> <li>• Do family firms evolve over time and to what extent does this evolution affect their positioning in typologies and taxonomies?</li> <li>• Are the consequences of family firms' types sensitive to the source of heterogeneity considered?</li> <li>• To what extent does the intersection between family business- and business family-related categorizations of the family firms affect their functioning and outcomes?</li> </ul>
	Heterogeneity consequences	<ul style="list-style-type: none"> <li>• Does the type of family firm influence its ability to innovate and survive?</li> <li>• Does the type of family firm pose specific challenges to succession and require an ad-hoc succession process?</li> <li>• Are some types of family firms more likely to become non-family firms than other?</li> <li>• How and why do family businesses and business families differ?</li> <li>• How and why do families' changes affect changes in their business, and vice versa?</li> <li>• How does tradition emerge and why are family firms attached to their traditions?</li> <li>• How and why do family owners' emotional attachment and power change over time?</li> <li>• How and why do paradoxes emerge within family firms?</li> <li>• How and why do family-centered non-economic goals evolve over time?</li> <li>• How and why does the involvement of non-family owners and/or managers affect family firms' decision-making and management processes?</li> <li>• What is a family? What are the implications of newly defined families?</li> <li>• What are the consequences of family events (e.g., birth, death, marriage, divorce) on family firms?</li> <li>• How do contemporary phenomena affecting families (e.g., multiple marriages, same-sex couples, single-parenthood, divorces) influence family firms' organization, functioning and outcomes?</li> <li>• What are the challenges of these contemporary phenomena on family firms' succession?</li> <li>• What are the challenges for family firms that derive from the aging crisis?</li> <li>• Is organizational authenticity considered important by family firms? Do family firms get a competitive advantage by preserving their organizational authenticity?</li> <li>• What are the actors that contribute to generate organizational authenticity in family firms? Does the interplay between family and non-family actors affect authenticity?</li> </ul>
Switching from <i>what</i> to <i>how</i> and <i>why</i> research questions	Family system and science	<ul style="list-style-type: none"> <li>• Does organizational authenticity evolve over time?</li> <li>• How can family firms innovate while preserving their organizational authenticity?</li> <li>• How can family firms manage their brands to communicate to consumers their organizational authenticity?</li> <li>• What is the role played by external audiences in determining the importance of family firms' brands?</li> <li>• How does the projection of the family firm nature of a firm and/or its image affect consumers' and other family firm stakeholders' perceptions? Are such effects positive or negative?</li> <li>• Do the distinctive features of family firms affect their ability and/or willingness to manage and survive in times of crisis?</li> <li>• Do family firms approach crisis differently from non-family firms?</li> <li>• Does the presence of a family managing the firm influence the responses to a crisis such as the one triggered by the COVID-19 pandemic?</li> <li>• What role do traditions play for family firms in times of crises? Are family firms able to be resilient – e.g., consolidating their traditions through innovation – to survive crises and successfully manage the new normal?</li> <li>• What instruments are family firms using to better orchestrate their resources (including human resources) to face the COVID-19 pandemic?</li> <li>• Can the current COVID-19 pandemic be an opportunity for family firms to renovate themselves and improve performance in the long run?</li> <li>• How do emotional experiences of family firms' owners, entrepreneurs and managers affect their functioning and outcomes?</li> <li>• How do the emotions of family owners, entrepreneurs and managers evolve over time and what are the consequences of these changes?</li> <li>• How do emotions intervene in the interactions between family and non-family actors in family firms?</li> <li>• How do emotions affect the succession process and its success? How is it possible to reduce the influence of emotions?</li> <li>• When do negative emotions result in positive outcomes in family firms, and viceversa? What are the consequences of the interaction between positive and negative emotions in family firms?</li> <li>• Do generation specific characteristics affect family firms's organization, functioning and outcomes?</li> <li>• How do family firms can lever on the differences and conflicts arising from the involvements of multiple generations within the firm?</li> <li>• Do the premature involvement of younger generations influence family firms' socio-emotional wealth, values, and survival?</li> <li>• How do family firms in different generations and different generations in family firms face management challenges?</li> <li>• Do the sociological aspects of generations affect family firms' management, functioning, and outcomes?</li> <li>• How do family firms internationalize?</li> </ul>
	Authenticity, marketing and branding	<ul style="list-style-type: none"> <li>• What is the relationship between internationalization and innovation in family firms? If there is any relationship, is internationalization a strategic tool to facilitate family firm innovation (e.g., learning by exporting), or is it the other way round?</li> </ul>
Drawing from other disciplines to investigate new relevant aspects for the family business	Crisis management	
	Emotions	
	Generations	
	Internationalization	

(continued on next page)



Table 7 (continued)

Direction	Sub-direction	Questions for future research
Advancing family business research through methodologies		<ul style="list-style-type: none"> <li>• What types of entry mode for international expansion are best suited for family firms?</li> <li>• Is the entry mode affected by the individual characteristics of the family leaders?</li> <li>• How do differences in values and goals of family and non-family actors affect family firms' internationalization?</li> <li>• How does family firms' succession and the involvement of new generations affect the attitude towards internationalization?</li> <li>• Do the individual characteristics of actors affect family firms' processes and outcomes?</li> <li>• How do the individual characteristics of actors affect family firms' goals and decision-making?</li> </ul>
	Microfoundations	<ul style="list-style-type: none"> <li>• Do family firms differ from non-family counterparts in terms of gender diversity? If yes, what are the implications of these differences?</li> <li>• How does the human capital of family firms' executives affect the decision-making process and outcomes?</li> <li>• What actors and their individual characteristics determine the goals of family firms' succession?</li> <li>• Do family firms make different organizational design decisions than non-family firms when considering together the most important organizational design elements? If yes, what are the implications of these differences?</li> <li>• Do the specific goals and values of family firms affect the way in which organizational elements are designed?</li> </ul>
	Organizational design	<ul style="list-style-type: none"> <li>• Do leadership and ownership succession have implications for the distribution of decision authority within family firms and their decision-making processes?</li> <li>• How does the family involvement and the interplay between family and non-family members affect the allocation of decision authority among family and non-family actors?</li> <li>• Do communication and coordination in family firms occur more tacitly compared to non-family firms? How do changes in the balance between family and non-family actors change the design of this organizational aspects?</li> <li>• What are the psychological foundations of family firms' actors decisions and behaviors? How do they affect family firms' functioning and outcomes?</li> </ul>
	Psychological foundations	<ul style="list-style-type: none"> <li>• What psychological attributes of founders and current leaders influence the success of the succession process?</li> <li>• What are the sources of family firms owners', entrepreneurs' and managers' cognitive biases? How do the distinctive traits of family firms affect the emergence of these biases?</li> <li>• Do the personality traits of family and non-family actors affect family firms' organization, functioning, and outcomes?</li> <li>• Are family owners, entrepreneurs and managers more likely to have a narcissistic personality compared to non-family ones? If yes, what are the implications for family firms?</li> <li>• How does succession influence family firm social capital?</li> </ul>
	Social capital transfer	<ul style="list-style-type: none"> <li>• Is there a different influence when we consider intra-family versus external succession?</li> <li>• How can existing social capital be transferred from one generation of family firm leaders and/or owners to the next?</li> <li>• Are there other actors besides the family firm incumbent and the successor who play a role in such transfer?</li> <li>• When is the right timing to start the social capital transfer process?</li> <li>• Do a change in the unit of analysis (from firm-level to family-, dynasty-, project-level) or the use of a multi-level analysis allow to more deeply explore the functioning and outcomes of family firms?</li> <li>• Is it possible to design new instruments to better capture and measure all the dimensions of family involvement?</li> <li>• Does the use of experiments allow better capturing the motivations and dynamics behind family firms' functioning?</li> <li>• Does the adoption of configurational approaches (e.g., cluster analysis, fsQCA) allow to get a better picture of family firms' characteristics and functioning?</li> </ul>
		<ul style="list-style-type: none"> <li>• Does network analysis may help in better understanding networks of family firms and of family and non-family actors within family firms?</li> <li>• Can big data be exploited to research on family firms?</li> <li>• Does the use of physiological measures (e.g., facial movements, hearth-rate, blood pressure, sweating) help in investigating how the interaction among family and non-family actors in family firms evolve and their consequences?</li> <li>• Does the use of sociograms and sociogenograms help advancing family business research through a better understanding of the relationships among family actors?</li> <li>• Does the use of longitudinal case studies allow to capture family firms' evolution?</li> </ul>

(e.g., Casillas, Moreno, & Barbero, 2010; Cherchem, 2017; Huybrechts, Voordeckers, & Lybaert, 2013; Le Breton-Miller, Miller, & Bares, 2015) or strategy (e.g., Astrachan, 2010; Goel, Mazzola, Phan, Pieper, & Zachary, 2012; Harris, Martinez, & Ward, 1994; Zellweger, 2007). Nevertheless, much more can be done by drawing from further disciplines. As a start, the definition of the *family* needs a serious reconsideration. Contemporary phenomena are indeed directly affecting the concept of family, which is now different from the past. At the same time, the variance and frequency of the events that contribute to change the family's equilibrium (e.g., births, deaths, marriages, divorces, or patchwork families) should be carefully taken into consideration to understand their side effects on the business. Similarly, the role of *generations* in the family business needs further exploration, including the implications of the concurrent involvement of multiple generations. Adding to these, there are some relevant aspects that have gained substantial interest in the general management literature, but that remain to date relatively overlooked by *FBR*, *JFBS* and *JFBM* scholars. Some examples are: emotions, psychological foundations and microfoundations at the micro level, and authenticity, marketing and branding, crisis management, organizational design, social capital transfer, and internationalization at the firm, groups and individual levels. For instance, recent research (Elsbach & Pieper, 2019) suggests how psychological needs may motivate individual identifications with, and identifiers of, family businesses, but we lack empirical investigation on this matter. Focusing on these aspects would allow to advance family business literature as they might result to be at the core of some family firms' dynamics and outcomes. Investigating these aspects in the context of family firms would provide family business scholars with the opportunity to contribute to other research fields (e.g., marketing, organizational design, or psychology).

Another example of relevant topic that family business scholars should add among the top priorities in their agenda is crisis management. Given the historic moment we are currently experiencing, it is important to understand how family businesses can lever on their peculiarities to manage and survive to the new normal triggered by the COVID-19 pandemic (De Massis & Rondi, 2020). Research on crisis management in family business is so far limited, and scholars should make an effort to understand both how the pandemic is affecting (and will affect) the various aspects concerning this type of firm and how family firms can react to the crisis.

Finally, some interesting avenues for future research emerged on the methodological side. In this respect, scholars have the opportunity to contribute to the field in two ways: 1) by adopting units of analysis that have not been explored yet, and/or 2) by using methods that have not been applied to the family business yet. With respect to the former, most of the research in *FBR*, *JFBS* and *JFBM* has adopted a firm-level unit of analysis. However, further, or even better, explanations for family firms' behaviors, functioning and outcomes might be derived moving their study to different levels of analysis, such as dynasty-, family-, or project-level, or conducting multi-level researches. With respect to the latter, our analysis of keywords highlighted that research has so far mainly been carried out through qualitative research, case studies and content analysis; whereas quantitative studies mainly used traditional regression-based models or cross-sectional data. Nevertheless, there are plenty of methods that can be valuable to advance family business research. Some examples are the use of experimental approaches – which can be particularly useful for exploring for instance the psychological foundations of behaviors occurring within the family business (e.g., Picone, De Massis, Tang, & Piccolo, 2021), such as network brokerage, the use of network analysis and big data, the exploration of physiological measures, and the moving from cross-sectional to longitudinal case studies. Moreover, Qualitative Comparative Analysis (QCA) can prove particularly powerful for the counterfactual analysis of causal complexity as it allows to assess causation by involving different combinations of causal conditions capable of generating the same outcome (see e.g., Garcia-Castro & Aguilera, 2014; Kraus, Ribeiro-Soriano, &

Schüssler, 2017). Accordingly, it might be useful to identify and compare different configurations of family firms, and understand how changes in such configurations would result in similar behaviors or outcomes, thereby contributing to explaining possible drivers of family business heterogeneity. Taken together, these methods would allow family business scholars to better understand the relations and interactions between family and non-family actors and among family members, as well as the motivations and dynamics behind family firms' behaviors, functioning, and outcomes.

#### 4.3. Limitations

As every piece of research, our paper is not without limitations. First, data has been collected from the Scopus database, and the limitations of this database – albeit one of the largest sources of its kind – can be reflected in our study. For instance, detailed information on authors' affiliations might be partially incomplete, or the count of papers' citations might not be up to date. Second, there are exceptional events that may lead to deviations in the results. For instance, the analysis of authors considers their affiliations at the time of publication; however, some authors have changed institutions over time and others have added further affiliations. Thus, our results show the best possible information that we could collect although they might be unable to capture all the dynamics occurring as the authors rotate across different institutions or start working for multiple institutions. A third limitation relates to the application of the bibliometric techniques by itself. For instance, co-citation analysis assumes the presence of conceptual or methodological proximity between works that are jointly cited; however, this may not be the case in all co-citations. Finally, while we considered the number of citations as a measure of importance or relevance, this might not always be the case. Indeed, readers must be aware that citations can be the result of many factors that influence the scholars while writing their papers. We made an attempt to control for this by analyzing citations patterns considering both total citations and citations excluding authors' self-citations as calculated in the Scopus database. Overall, a significant difference between citations with and without self-citations did not emerge. However, we caution scholars to consider that the number of citations, while being a commonly accepted metrics to measure an article's or an author's impact, might also be influenced by other factors besides relevance and quality (such as e.g. being parts of the same academic supervisor/doctoral students network). So we welcome future studies that develop alternative measures for impact (e.g., by looking at the number and type of social media features that an article and/or author receives). Despite these limitations, we are confident that our bibliometric analysis and the ensuing review of the most debated topics offers a good and comprehensive overview of the leading trends of family business research published in *FBR*, *JFBS* and *JFBM*.

#### 5. Conclusion

This article has offered a bibliometric overview of the 1381 contributions published in the three leading journals exclusively dedicated to family business research from the inception of *FBR* in 1988 to the end of 2020, laying the ground for future research developments. Besides analyzing *FBR*, *JFBS* and *JFBM* from a bibliometric point of view, we have also unearthed the most debated topics and provided directions for future research. Our article can thus be useful for scholars, students and practitioners alike. Scholars can understand the structure and interests of research published in *FBR*, *JFBS* and *JFBM* and get inspiration from the new, unexplored directions for research that we have identified. Students can get an overview of the impressive body of knowledge accumulated in *FBR*, *JFBS* and *JFBM*, and the most influential works and productive authors that contributed to its accumulation. Practitioners can use our work as a guide to understand the key concepts and scholars in the family business field, which might be of help to improve the management of their family firms.

## Authors' contributions

Rovelli (Conceptualization, Writing - Original Draft), Ferasso (Methodology, Formal Analysis, Visualization), De Massis (Conceptualization, Writing - Original Draft, Writing - Review & Editing), Kraus (Conceptualization, Methodology, Writing - Original Draft, Writing - Review & Editing).

## Declaration of Competing Interest

The authors report no declarations of interest.

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